

REMARKS

Amendments to the claims

In an earnest effort to advance prosecution and without prejudice, independent claim 1 has been amended to recite preferred embodiments of applicants' invention that are more clearly differentiated from the prior art.

Specifically, claim 1 has been amended to specify that the triblock surfactant is a compound having the formula $\text{CH}_3-(\text{CH}_2)_7-\text{O}-\text{PO}_9-\text{EO}_5-\text{H}$ as disclosed in original claim 10 and in the specification at page 9 and at page 21.

Claim 1 has also been amended to remove the phrase "and wherein components i) and ii) can form a micro-emulsion with equal weights of water and triolein at a minimum concentration of component i) of 15%".

By this amendment and without prejudice claims 5-7 and 10 are cancelled as their subject matter is now incorporated in claim 1.

Claim Rejections – 35 USC §112

In the final Office Action mailed November 15, claims 1-3, 5-10 and 12-17 were rejected under 35 USC 112 first paragraph. The limitation recited in claim 1, specifically, "and wherein components i) and ii) can form a micro-emulsion with equal weights of water and triolein at a minimum concentration of component i) of 15%", was held to contain new matter.

Since limitation is absent from amended claim 1, the 112 rejection is rendered moot.

Claim Rejections – 35 USC §103

In a previous Office action mailed July 13, 2007, claims 1-12 were held as being unpatentable under 35 U.S.C. §103(a) over the combination of JP 1993-261825 ('825) and Science Article "On the Origins of Morphological Complexity in Block Copolymer Surfactants", Vol. 300, pp 460462 (8/18/2003). Applicants respectfully believe that the cited reference number JP 1993-261825 is incorrect. Applicants have used the publication number 5-198129 (1993) which appears on the front page of the original Japanese reference contained in the file wrapper image. This reference will be designated JP '129. For completeness of the response, applicants discuss below how their amended claims differ from the prior art of record.

JP '129 was relied upon by the Examiner for its disclosure of component i) ("triblock surfactant"). JP'129 discloses a gel composition comprising a polyoxyethylene-polyoxypropylene ether of the formula: $R-O-(PO)_m-(EO)_n-H$ ("triblock surfactant") wherein R is a linear or branched chain having 10-30 carbon atoms; m and n are integers having values of 1-20 and 1-50 respectively (paragraph 0007).

JP '129 is silent with respect to any properties or benefits of triblock surfactants having $R < 10$, in general, and in particular any peculiar benefits of a triblock surfactant having the structure recited in amended claim 1 in the micro-emulsification of sebum.

Specific R groups mentioned in JP'129 and used in the examples are cetyl (R=16), and decyltetradecyl (R=24).

JP '129 is silent concerning the requirement that the composition can form a micro-emulsion with sebum.

JP '129 is silent with respect to inclusion of poly(Butadiene-b-Ethylene Oxide) block copolymers in the gel composition.

The Science article was relied upon by the Examiner for its disclosure of component ii) (poly(Butadiene-b-Ethylene Oxide)). The Science article is directed to a study of the morphology of poly(Butadiene-b-Ethylene Oxide) block polymers in aqueous solutions at concentrations of 1%, 22% and 26% by weight (page 461 columns 1 and 3).

The Science article is silent about the properties of poly(Butadiene-b-Ethylene Oxide) at concentrations less than 1%.

The Science article is silent with respect to the micro-emulsification of sebum or triglycerides and any surfactant structural properties that would maximize micro-emulsification.

The Science article is silent about any benefits of the combination of poly(Butadiene-b-Ethylene Oxide) with nonionic surfactants in general, and in particular, is silent about any peculiar benefits of mixtures of poly(Butadiene-b-Ethylene Oxide) with triblock surfactants in the micro-emulsification of sebum.

In contrast to JP'129 and the Science article, the current claims are directed to skin care compositions that form micro-emulsions with sebum. Applicants discovered specific surfactant-polymer combinations that efficiently micro-emulsify sebum (page 2, lines 21-25).

Applicants' claims differ from the combined disclosures of JP'129 and the Science article in at least the following key elements:

a) The triblock surfactant has the structure $\text{CH}_3-(\text{CH}_2)_7-\text{O}-\text{PO}_3-\text{EO}_5-\text{H}$ which is well out of the range disclosed in JP '129.

b) The concentration of the poly(Butadiene-b-Ethylene Oxide) block polymer is about 0.1 and about 0.6 wt% whereas the minimum amount disclosed in the Science Article is 1 wt%. Applicants' have demonstrated in Example 2 that synergy in micro-emulsification occurs over a narrow concentration ratio between the claimed triblock surfactant and the poly(Butadiene-b-Ethylene Oxide) block polymer. The optimum concentration of poly(Butadiene-b-Ethylene Oxide) block polymer required in the composition to realize maximum synergy (about 0.25 wt% as recited in claim 12) is far below the minimum amount disclosed in the Science article.

Furthermore, applicants' have also shown in Example 2 that a different nonionic block copolymer $[(\text{EO})_{46}-(\text{PO})_{16}\text{y}-(\text{EO})_{46}]$ does not provide any synergy with the triblock surfactant in micro-emulsification.

c) The requirement that the composition forms a micro-emulsion with sebum. Both JP'129 and the Science article are silent about sebum micro-emulsions.

Applicants submit that absent a disclosure of the above elements a) – c) of applicants amended claims, the combination of JP'129 and the Science article does not render the present claims *prima facie* obvious.

Claims 13-17 were previously rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of JP 5-198129 (JP'129) and Science Article "On the Origins of Morphological Complexity in Block Copolymer Surfactants", Vol. 300, pp 460462 (8/18/2003) as applied to claims 1-12 above and further in view of US patent 5,540,853 ('853). For completeness of the response, applicants discuss below how their amended claims differ from the prior art of record.

The non-obviousness of claims 1-12 over JP'129 and the Science article has already been discussed.

'853 was relied upon by the Examiner for its disclosure of astringent salts in topical composition and suggesting adding nonionic surfactants. '853 is directed personal cleansing and/or cosmetic compositions containing enduring perfumes which are less likely to irritate skin and which provide efficient and long lasting perfume benefits even after rinsing. Astringents are mentioned as optional antiperspirant ingredients.

'853 is silent about the specific type of nonionic surfactant, R-O-(PO)_x-(EO)_y-H triblock in general and the specific structure recited in amended claim 1 in particular.

'853 is silent about poly(Butadiene-b-Ethylene Oxide) block polymers (the word "butadiene" was not found in a word search of the document).

'853 is silent regarding micro-emulsions in general and the micro-emulsification of sebum in particular (the words, "sebum", "triolein", "microemulsion" or "micro-emulsion" were not found in a word search of the document)

Thus, because the combination JP'129, the Science article and '853 does not disclose elements a) – c)) recited in amended claim 1, the combination of references does not render amended claim 1 *prima facie* obvious.

Applicants submit that absent a disclosure of these elements, the combination of JP'129, the Science article and '853 does not render the present claims 13-17 *prima facie* obvious because these claims derive from amended claim 1.

In light of the above amendments and remarks applicants respectfully request that the application be allowed to issue.

If a telephone conversation would be of assistance in advancing prosecution of the subject application, applicants' undersigned agent invites the Examiner to telephone him at the number provided.

Respectfully submitted,



Michael P. Aronson
Registration No. 50,372
Agent for Applicant(s)

MPA/sc (201) 894-2412